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UNITED STATES DEPARTMENT OF AGRICULTURE
WAR FOOD ADMINISTRATION
OFFICE OF DISTRIBUTION

INSTRUCTIONS FOR MAKING AND CERTIFICATING "MILLING TESTS"
ON ROUGH RICE OF CALIFORNIA PRODUCTION, EXCEPT ON ROUGH
RICE OF CLASSES I TO VII, INCLUSIVE, WHEN SUCH ROUGH RICE
IS ALSO INSPECTED AND CERTIFICATED AS TO GRADE.

Effective August 1, 1944

The "Milling Test" for a "lot" or a sample of rough rice shall be restricted to rough rice which contains not more than 17 percent moisture, shall be made with the "huller" adopted by the War Food Administration, Office of Distribution, and shall be made in accordance with the following instructions and such supplemental interpretations of the instructions as may be issued by the Rice Supervisor for the district in which the inspector is located. These instructions apply to California Pearl and Calady Rough Rice grown in California and only to ungraded Rough Rice of the Classes 1 to 7 when grown in California. a/

METHOD OF MAKING AND CERTIFICATING THE RESULTS OF A MILLING TEST

Milling Test on Rough Rice Which Has a Moisture Content of 15 percent or Less

1. Size of Sample: For a milling test only, including moisture test, the sample shall be large enough to provide not less than 1,600 grams of dockage-free rough rice. For complete grading or analysis and milling test the sample shall be of sufficient size to supply not less than 2,150 grams of dockage-free rough rice. To prevent a loss or gain in the moisture content of the rice the sample shall be held in an air-tight container from the time it is drawn until the milling test is made.
2. Representative Portions: All determinations that are based on fractional parts of the sample shall be made on standard size portions cut from the sample by means of the Boerner divider.
3. Dockage: The dockage shall be determined on a representative portion of the original sample of rough rice.
4. Moisture: The moisture content of the rice shall be determined on a representative portion of the dockage-free rough rice.
5. Milling Test: The milling test shall be made on a representative portion of 1,300 grams of dockage-free rough rice. The length of time required for operating the huller in making the milling test shall be that indicated in minutes and seconds in the following table except as modified in footnote 3.

a/ When rough rice of Classes I to VII, inclusive, and of Subclass A of Class VIII, is inspected and certificated as to grade, the standards for such rice require that its "milling quality" be determined and certificated as a part of the grade designation.

Table for determining the length of time required for operating the huller in making a milling test on California Pearl and Calady Rough Rice based on the moisture content of the rice: 3/

Percent Moisture	Bar Setting No. 1 1/				Bar Setting No. 2 2/			
	Time		Percent Moisture	Time		Percent Moisture	Time	
	Minutes	Seconds		Minutes	Seconds		Minutes	Seconds
10.6	7	4	12.2	4	21	13.8	5	10
10.7	6	54	12.3	4	10	13.9	4	58
10.8	6	44	12.4	4	0	14.0	4	46
10.9	6	34	12.5	3	50	14.1	4	33
11.0	6	23	12.6	3	40	14.2	4	21
11.1	6	13	12.7	3	30	14.3	4	8
11.2	6	3	12.8	3	20	14.4	3	56
11.3	5	52	12.9	3	9	14.5	3	44
11.4	5	42	13.0	2	59	14.6	3	31
11.5	5	32	13.1	2	49	14.7	3	19
11.6	5	22	13.2	2	39	14.8	3	7
11.7	5	11	13.3	2	29	14.9	2	55
11.8	5	1	13.4	2	19	15.0	2	42
11.9	4	51	13.5	2	8			
12.0	4	41	13.6	1	58			
12.1	4	31	13.7	1	48			

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At the end of the run/scoured rice shall be removed from the machine and placed immediately in an airtight container, and held until the rice has cooled.

The scoured rice shall then be aspirated with a Bates aspirator and weighed.

- Analysis:** A representative portion of not less than 50 grams of the scoured and aspirated rice shall be analyzed for "whole kernels" and "broken kernels."
- Computations:** The necessary computations and corrections shall be made to determine the percentage or pounds per hundred pounds of rough rice of scoured "Whole Kernels," "Broken Kernels," and "Total Rice," based on the weight of the rough rice (free from dockage) used in making the test. By further computation the results shall be converted into terms of "Head Rice with 4 percent broken kernels," "Other Broken Kernels," and "Total Rice."

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- 1/ Bar setting No. 1 shall be used for rough rice containing not more than 13.7 percent of moisture.
 - 2/ Bar setting No. 2 shall be used for rough rice containing more than 13.7 percent of moisture but not more than 15 percent of moisture.
 - 3/ The Time of Run Table shown in the above tabulation is based on research conducted on California Pearl rough rice. Calady rough rice shall be tested by the method specified for testing California Pearl rough rice. When other classes of rough rice of California production are tested with the huller the Time of Run may be altered to make the test more applicable to the class of rice being tested.

8. Certification: For every milling test inspection on a dockage-free basis, the percentage of "Head Rice with 4 percent broken kernels," "Other broken kernels," and "Total Rice" shall each be stated on the certificate either in terms of whole percent and tenths of a percent or in terms of whole pounds and tenths of a pound per hundred pounds of rough rice. The percentage of moisture shall be stated on the certificate in terms of whole percent and tenths of a percent. The percentage of dockage shall be stated on the certificate in terms of whole percent. A fraction of a percent of dockage shall be disregarded. At the request of an applicant for an inspection the percentage of by-products may also be stated on the certificate in terms of percentage or pounds per 100 pounds of rough rice.

In addition to, or in lieu of, stating the milling test results as required above, it is permissible to compute the results on the basis of the weight of the original rough rice including the dockage and to state these results on the inspection certificate in terms of "Head Rice with 4 percent broken kernels," "Other Broken Kernels," "Total Rice," and "By-Products."

For each certification of a milling test a statement explaining that the milling test results are based (a) on the rough rice free from dockage, or (b) on the rough rice including the dockage or on each (a) and (b), as the case may be shall be placed on the certificate.

Milling Test on Rough Rice Which Contains More Than 15 percent but not more Than 17 percent of Moisture.

In the case of rough rice which contains more than 15.0 percent but not more than 17.0 percent of moisture, the sample on which the milling test is to be made shall be artificially dried in the laboratory to approximately, but not more than, 15.0 percent moisture before applying the milling test, and the milling test shall then be made in accordance with the instructions for making and certifying a milling test on rough rice which has a moisture content of 15 percent or less. A statement that such rice sample was laboratory dried before the milling test was performed shall be placed on the certificate.

CERTIFICATION OF TEST WEIGHT PER BUSHEL

At the request of an applicant for an inspection, the test weight per bushel of rough rice may be stated on the inspection certificate either in terms of the original rough rice including the dockage or in terms of the dockage-free rough rice. Such statement shall be placed on the certificate under "Remarks" and shall clearly indicate the basis on which the test was made.

DEFINITIONS

Whole Kernels (Head Rice): Whole kernels (head rice) shall consist of kernels and pieces of kernels of scoured rice which are not split and which are three-fourths or more of the length of the whole kernel.

Broken Kernels: Broken kernels shall be (a) pieces of kernels of scoured rice which are less than three-fourths of the length of the whole kernels and (b) split kernels.

Other Broken Kernels: When certificating the milling test in terms of "Head Rice with 4 percent of broken kernels" the broken kernels in excess of the 4 percent that are contained in the head rice shall be designated and certificated as "Other Broken Kernels."

Total Rice: Total rice shall consist of the whole and the broken kernels of scoured rice, combined.

Head Rice with 4 percent broken kernels: The term "Head Rice with 4 percent broken kernels" denotes the quantity of scoured whole kernels of rice that can be obtained, under average milling conditions, from the rough rice together with a quantity of the scoured broken kernels computed by dividing the factor 96/100 into the percentage of scoured whole kernels.

By-Products: By-Products shall include the "feed" reclaimed from the dockage and the estimated bran and polish.

Food: Food shall include only wood seeds and grain other than rice in the dockage, and small pieces of rice kernels which remain in and cannot be reclaimed from the dockage in the determination of dockage. Sand, dirt, empty hulls, and similar worthless material shall not be considered to be feed.

Estimated Bran and Polish: Estimated bran and polish shall be the difference between the percentage of brown rice obtained by shelling a "split" of the sample and the percentage of scoured rice resulting from the milling test.

The "Milling Test" described in these instructions is not specified in, nor is it a part of, the official standards for rough rice. The milling test is a separate test for indicating (a) "Whole kernels, broken kernels, and total rice" on the basis of either dockage-free rough rice or rice containing the dockage, or (b) the percentage of "Head rice with 4 percent broken kernels," "Other Broken Kernels," (broken kernels in excess of 4 percent) and "total rice, obtainable from dockage-free rough rice under average milling conditions, or (c) "Head rice with 4 percent broken kernels," "Other broken kernels," "Total rice," and "By-Products" obtainable under average milling conditions from rough rice which includes the dockage, which test the inspector may make and the results of which he may certify on an inspection certificate, when requested to do so by the applicant for inspection. The official certification of a milling test by rice inspectors is provided for in the Regulations governing the inspection and certification of rice.

The term "Milling Test" described in this outline of procedure should not be confused with the term "Milling Quality" which is defined in the official standards for rough rice of the Classes I to VII, inclusive, and of Subclass (a) of Class VIII, and to all rough rice produced in the Southern States.

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